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File 348:EUROPEAN PATENTS 1978-2007/ 200813
         (c) 2008 European Patent Office
File 349:PCT FULLTEXT 1979-2008/UB=20080320UT=20080313
         (c) 2008 WIPO/Thomson

Set       Items   Description
S1      2154812   STATE? ? OR STATUS OR CONDITION? ?
S2       237869   S1(5N)(COMPUTER? ? OR PROCESS?R? ? OR MICROCOMPUT? OR MICR-
             OPROCESS? OR SLAVE? ? OR NODE? ? OR THREAD? ? OR DEVICE? ? OR
             UNIT OR UNITS OR STATION? ? OR TERMINAL? ? OR CLIENT? ? OR LI-
             NK? ?)
S3        93870   SCHEDUL???
S4         6529   S3(5N)(MASTER? ? OR CONTROLLER? ? OR CONTROLER? ? OR COORD-
             INAT?R? ? OR CO()ORDINAT?R? ? OR SERVER? ? OR BROKER? ? OR HUB
             OR ADMINISTRATOR? ?)
S5        10560   SCHEDULER? ?
S6        25685   (PRINCIPAL OR LEADER OR LEAD OR CHIEF OR ALPHA OR PARENT OR
             PRIMARY OR MAIN OR CENTRAL)(1W)(COMPUTER? ? OR PROCESS?R? ? -
             OR MICROCOMPUT? OR MICROPROCESS?)
S7          209   S3(5N)S6
S8        78812   UPLOAD? OR DOWNLOAD? OR (UP OR DOWN)()LOAD???
S9      2171300   DELIVER? OR DISTRIBUT? OR PROVIDE OR PROVIDES OR PROVIDED -
             OR PROVIDING OR PROVISION? ?
S10      246202   IMPORT? ? OR IMPORTED OR IMPORTING OR IMPORTATION? OR ACQU-
             ISITION? ? OR ACQUIR???
S11     1524434   TRANSFER??? OR TRANSFERR??? OR SEND??? OR SENT OR TRANSMIS-
             SION? ? OR TRANSMIT? OR RETRIEV???
S12      886434   S8:S11(5N)(DATA OR OBJECT? ? OR CONTENT? ? OR AUDIODATA OR
             VIDEODATA OR IMAGEDATA OR MEDIADATA OR TEXTDATA OR MEDIA OR M-
             ULTIMEDIA OR VIDEO? ?)
S13       64710   S8:S11(5N)(FILE? ? OR DATAFILE? ? OR COMPUTERFILE? OR AUDI-
             OFILE? OR VIDEOFILE? OR IMAGEFILE? OR MEDIAFILE? OR TEXTFILE?
             OR MUSICFILE?)
S14      122280   BETWEEN(1W)(SLAVE? ? OR NODE? ? OR THREAD? ? OR DEVICE? ? -
             OR UNIT OR UNITS OR STATION? ? OR TERMINAL? ? OR CLIENT? ? OR
             LINK? ?)
S15      377045   (ANOTHER OR DIFFERENT OR SECOND? OR 2ND OR THIRD OR 3RD OR
             OTHER)(1W)(SLAVE? ? OR NODE? ? OR THREAD? ? OR DEVICE? ? OR U-
             NIT OR UNITS OR STATION? ? OR TERMINAL? ? OR CLIENT? ? OR LIN-
             K? ?)
S16     1278238   REDIRECT? OR RE()DIRECT??? OR REFER?? OR REFERING OR REFER-
             RING OR REFERRED
S17       33763   S16(5N)(S5:S6 OR MASTER? ? OR CONTROLLER? ? OR CONTROLER? ?
             OR COORDINAT?R? ? OR CO()ORDINAT?R? ? OR SERVER? ? OR BROKER?
             ? OR HUB OR ADMINISTRATOR? ?)
S18        1289   S2(100N)S17
S19       10574   S3(10N)S12:S13
S20           8   S18(100N)S19
S21           5   S18(100N)(S3(10N)S14:S15)
S22         818   S2(100N)S19
S23         141   S22(100N)S14:S15
S24          41   S23(100N)(S4:S5 OR S7)
S25          49   S20:S21 OR S24
S26          22   S25 AND PY=1963:2003
S27          23   S25 AND (AC=US OR AC=US/PR) AND AY=1963:2003
S28          27   S26:S27
? t28/5,k/10-11,23-24,26

 28/5,K/10      (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01142177     **Image available**
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SEM - DISTRIBUTED SCHEDULING SCHEME FOR THE REVERSE LINK OF WIRELESS SYSTEMS
MECANISME D'ORDONNANCEMENT SEMI - REPARTI POUR LA LIAISON RETOUR DE SYSTEMES
SANS FIL

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Legal Representative:
BORDEN LADNER GERVAIS LLP (agent), Attn: Dennis, R., Haszko, World
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Patent and Priority Information (Country, Number, Date):
Patent: WO 200464433 A1 20040729 (WO 0464433)
Application: WO 2004CA13 20040107 (PCT/WO CA04000013)
Priority Application: US 2003439259 20030110
Designated States:
(All protection types applied unless otherwise stated - for applications
2004+)
AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE
SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class (v7): H04Q-007/38
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 11929

English Abstract
In wireless communications systems, the Base Station Controller (BSC)
(241) and Base Transceiver Stations (BTSs) (211, 213) have schedulers
(243, 215) which schedule soft handoff (SHO) users (221) and non-soft
handoff (NSHO) users (223, 225) regardless of delay sensitive users. The
BSC's scheduler (243) prioritizes the SHO users (221) and calculates the
available capacity at each sector. Then, with assigned data rates
according to the priority, the available capacity is updated by the BSC's
scheduler (243). The BTS's scheduler (215) calculates the available
capacity at the sector and with assigned data rates according to the
priority of the NSHO users (223, 225), the available capacity is updated.
Based on the updated available capacity packet data is transmitted at the
scheduled data rate in the reverse link. With the schedules processed
separately by the BSC (241) and BTS (213), the multi-user diversity of
states on the reverse link of wireless communications is efficiently
supported.

French Abstract
Dans les systemes de communications sans fil, le controleur de station de
base (BSC) (241) et les stations d'emission et de reception de base (BTS)
(211,213) comprennent des ordonnanceurs (243,215) qui planifient les
utilisateurs (221) a transfert sans coupure (SHO) et les utilisateurs
(223,225)a transfert avec coupure (NSHO) independamment des utilisateurs
sensibles au retard. L'ordonnanceur (243) du BSC donne priorite aux

utilisateurs SHO (221) et il calcule la capacite disponible dans chaque secteur. Ensuite, avec les debits de donnees affectes selon la priorite, la capacite disponible est actualisee par l'ordonnanceur (243) du BSC. L'ordonnanceur (215) du BTS calcule la capacite disponible dans le secteur et avec les debits de donnees affectes, selon la priorite des utilisateurs NSHO (223,225), la capacite disponible est actualisee. Sur la base de la capacite disponible actualisee, les donnees en paquet sont transmises selon les debits de donnees planifies dans la liaison retour. Avec les ordonnancements traites separement par les BSC (241) et BTS (213), la diversite multi-utilisateur d'etats sur la liaison retour de communications sans fil est prise en charge efficacement.

Legal Status (Type, Date, Text)
Publication 20040729 A1 With international search report.
Publication 20040729 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.
Claim Mod 20041007 Later publication of amended claims under Article 19 received: 20040820
Republication 20041007 A1 With international search report.
Republication 20041007 A1 With amended claims and statement.
Fulltext Availability:
Detailed Description

Detailed Description
... rate control algorithm has the same problem in allocating resources to SHO users as distributed **scheduling** .

[0014] SUMMARY OF THE INVENTION
[0015] It is an **object** of the present invention to **provide** an improved **scheduler** for properly **scheduling data transmissions** and efficiently supporting the multi-user diversity of **states** on the reverse **link** of packet-based wireless communications.

[0016] According to one aspect of the present invention, there is provided a **scheduler** for scheduling calls in wireless communications system comprising: a Base Station Controller for controlling various...

...aspects of the system; and at least one Base Transceiver Station for providing communication links **between** mobile **stations** and between the mobile stations and a wireline telephone network, the mobile stations being associated with multi-diversity of user states, the **scheduler** scheduling the calls in reverse communication links based on the parameters of the system

[0017] In the **scheduler** , scheduling functions are distributed to the Base Station Controller and the Base Transceiver Station in...

...the mobile. station states.

[0018] For example, the scheduling function performed by the Base Station **Controller** **schedules** calls of the mobile stations associated with soft handoff (SHO) state and the scheduling function...

28/5,K/11 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01028864 **Image available**
METHOD AND APPARATUS FOR A MIMO-OFDM COMMUNICATION SYSTEM
ATTRIBUTION DE RESSOURCES POUR SYSTEMES DE COMMUNICATION MIMO-OFDM
Patent Applicant/Assignee:
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(Residence), US (Nationality)
Inventor(s):
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Legal Representative:
WADSWORTH, Philip R (et al) (agent), QUALCOMM Incorporated, 5775 Morehouse Drive, San Diego, CA 92121, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200358871 A1 **20030717** (WO 0358871)
Application: WO 2002US41756 20021231 (PCT/WO US0241756)
Priority Application: US 200242529 20020108
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class (v7): H04L-001/06
International Patent Class (v7): H04L-005/02
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 32869

English Abstract
Techniques to assign terminals for data transmission in a MIMO-OFDM system. A scheduler forms sets of terminals, called a hypothesis, for data transmission for each of a number of frequency bands. One or more sub-hypotheses may be further formed for each hypothesis, with each sub-hypothesis corresponding to (1) specific assignments of transmit antennas to the terminal(s) in the hypothesis, or, (2) a specific order for processing the uplink data transmissions from the terminal(s). The performance of each sub-hypothesis is then evaluated. One sub-hypothesis is then selected for each frequency band based on the evaluated performance, and, the set of terminals in each selected sub-hypothesis are then scheduled for data transmission on the corresponding frequency band.

French Abstract
L'invention porte sur des techniques de programmation de terminaux pour la transmission de donnees sur la liaison descendante et/ou montante d'un systeme MIMO-OFDM en fonction des "signatures" spatiales et ou de frequence des terminaux. Un programmateur forme un ou plusieurs ensembles de terminaux pour une eventuelle transmission de donnees (liaison descendante ou montante) pour chaque bande d'un nombre de bandes de frequence. Une ou plusieurs sous-hypotheses peuvent egalement etre etablies pour chaque hypothese, chaque sous-hypothese correspondant a (1) des affectations specifiques d'antennes de transmission aux terminaux de l'hypothese (pour la liaison descendante) ou (2) un ordre specifique pour le traitement des transmissions de donnees par liaison montante depuis le ou les terminaux (pour la liaison montante). La performance de chaque sous-hypothese est ensuite evaluee (par exemple, sur la base d'une ou plusieurs mesures de performance). Une sous-hypothese est ensuite selectionnee pour chaque bande de frequence sur la base de la performance

evaluee, et le ou les terminaux de chaque sous-hypothese evaluee sont ensuite programmes pour la transmission de donnees sur la bande de frequence correspondante.

Legal Status (Type, Date, Text)
Publication 20030717 A1 With international search report.
Publication 20030717 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.
Correction 20031113 Corrected version of Pamphlet front pages: under (54) published title replaced by correct title under (57) published abstract replaced by correct abstract
Republication 20031113 A1 With international search report.
Examination 20031211 Request for preliminary examination prior to end of 19th month from priority date

Patent and Priority Information (Country, Number, Date):
Patent: ... **20030717**
Fulltext Availability:
Detailed Description
Publication Year: **2003**

Detailed Description
... resources in a MIMO-OFDM system to provide high system performance.

SUMMARY
[10091 Techniques are **provided** herein to **schedule** terminals for **data transmission** on the downlink and/or uplink based on the spatial and/or frequency "signatures" of...

...an upcoming time interval may be associated with transmission channels having different capabilities due to **different link conditions** experienced by the **terminal**. Various scheduling schemes are provided herein to select a "proper" set of one or more...

...that system goals (e.g., high throughput, fairness, and so on) are achieved.

[1010] A **scheduler** may be designed to form one or more sets of terminals for possible (downlink or...

28/5,K/23 (Item 15 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00568263 **Image available**
DISTRIBUTED MONITOR CONCURRENCY CONTROL
COMMANDE DE LA CONCURRENCE DE MONITEURS REPARTIS
Patent Applicant/Assignee:
SUN MICROSYSTEMS INC,
Inventor(s):
HADDON Bruce Kenneth,
CONNOR William Hayden,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200031636 A1 **20000602** (WO 0031636)
Application: WO 99US27854 19991123 (PCT/WO US9927854)
Priority Application: US 98198477 19981124
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA

UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class (v7): G06F-009/46
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 5368

English Abstract
A system and method is disclosed for synchronizing threads of execution within a distributed computing environment. Threads of execution within a computer spawn additional threads of execution on separate computers within the distributed computing environment. Each thread may compete for shared resources within the computing environment, thereby creating a need to avoid deadlocks among the local threads. Whereas locals thread exists within a single computing platform, logical threads are created to relate local threads to each other and thereby span the platforms on which the local threads reside. Distributed monitors are created to control access to shared resources by local threads based on logical thread affiliations. Locks within the distributed monitors are assigned to logical threads instead of local threads. Local threads that are each part of the same logical thread will all have access to the shared resource when the lock is assigned to the logical thread.

French Abstract
Cette invention se rapporte a un systeme et a un procede servant a synchroniser les unites d'execution dans un environnement informatique reparti. Les unites d'execution d'un ordinateur engendrent des unites d'execution additionnelles dans des ordinateurs separes de l'environnement informatique reparti. Chaque unite d'execution peut convoiter les ressources partagees de l'environnement informatique, creant ainsi la necessite d'eviter les verrouillages cul-de-sac parmi les unites d'execution locales. Alors que les unites d'execution locales sont presentes dans une plate-forme informatique unique, les unites d'execution logiques sont creees pour mettre en relation les unites d'execution locales entre elles et pour couvrir ainsi les plates-formes sur lesquelles resident les unites d'execution locales. Des moniteurs repartis sont crees pour commander l'acces aux ressources partagees par les unites d'execution locales sur la base des affiliations des unites d'execution logiques. Des verrouillages a l'interieur des moniteurs repartis sont attribues aux unites d'execution logiques plutot qu'aux unites d'execution locales. Les unites d'execution locales qui font chacune partie de la meme unite d'execution logique ont toutes acces aux ressources partagees, lorsque le verrouillage est attribue a l'unite d'execution logique.
Patent and Priority Information (Country, Number, Date):
Patent: ... **20000602**
Fulltext Availability:
Detailed Description
Publication Year: **2000**

Detailed Description
... to the locks.

U.S. Patent 5,524,247 discloses a system for scheduling programming **units** to a resource based on **status** variables indicating a lock or lock-wait **state**. The central processing **unit** (CPU) sets a predetermined value in the **status** variable corresponding to a **thread** when the thread starts waiting for a resource which it shares with **other threads**. The **scheduler refers** to the **status** variable, selects, with priority, a **thread** other than the thread waiting for the shared resource, and allocates the CPU to the...

28/5,K/24 (Item 16 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00445871 **Image available**
PROCESS CONTROL SYSTEM USING A LAYERED HIERARCHY CONTROL STRATEGY DISTRIBUTED INTO MULTIPLE CONTROL DEVICES
SYSTEME DE GESTION DE PROCESSUS INDUSTRIELS UTILISANT UNE STRATEGIE DE GESTION A HIERARCHIE EN COUCHES REPARTIE DANS DES DISPOSITIFS DE COMMANDE MULTIPLES
Patent Applicant/Assignee:
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Inventor(s):
NIXON Mark,
HAVEKOST Robert B,
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OTT Michael G,
WEBB Arthur,
LUCAS Mike,
HOFFMASTER James,
OTTENBACHER Ron,
BECUGHTER Ken J,
FALTESEK Roy,
KRIVOSHEIN Ken D,
SHEPARD John R,
CHRISTENSEN Dan D,
SCHLEISS Duncan,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9836335 A2 **19980820**
Application: WO 98US1573 19980206 (PCT/WO US9801573)
Priority Application: US 97799966 19970214
Designated States:
(Protection type is "patent" unless otherwise stated - for applications prior to 2004)
AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class (v7): G05B-019/418
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 49539
English Abstract
A process controller (100) implements smart field device standards (132) and other bus-based architecture standards so that communications and control among devices are performed and the standard control operations are transparent to a user. The process controller implements and executes a standard set of function blocks (522) or control functions defined by a standard protocol so that standard-type control is achieved with respect to non-standard-type devices (12). The process controller enables standard devices (6) to implement the standard set of function blocks and control functions. The process controller implements an overall strategy as if all connected devices are standard devices by usage of a Fieldbus function block as a fundamental building block for control structures. Function blocks are defined to create control structures for all types of devices. A user defines the control strategy by building a plurality of function blocks and control modules (440) and downloading or installing user-specified portions of the control strategy into the Fieldbus devices

and the non-Fieldbus devices. Thereafter, the Fieldbus devices automatically perform the downloaded portions of the overall strategy independently of other portions of the control strategy. The process control system includes a diagnostic monitoring and display functionality for viewing, in a coherent manner, diagnostic information relating to a process that operates over multiple devices and system components. The digital control system automatically senses when a new controller is attached to a network and determines the number and types of I/O Ports that are attached to the new controller. The digital control system program also includes an automatic configuration program that responds to sensing of a new controller by automatically configuring the input/output (I/O) subsystem Upon connection of the device, the device is automatically sensed and configured using the database configuration information, without setting of physical switches or node address information on the devices. The digital control system with a predetermined configuration automatically senses the connection to a network of a digital device that is not included in the predetermined configuration. The process control system includes a user interface (300) which supports multiple IEC-1131 standard control languages and user-selection from among the control languages. From a single application routing, a user selects a control language from among a plurality of control languages including, for example, Function Blocks, Sequential Function Charts, Ladder Logic and Structural Text, to implement a control strategy. The process control system includes an alarm and event monitoring and display system for which various users of the system can easily prioritize the alarm and event information that is displayed.

French Abstract

Un controleur (100) de processus industriels met en oeuvre des normes (132) de dispositifs de terrain intelligents ainsi que d'autres normes d'architecture basees sur des bus de maniere que les transmissions et la gestion parmi les dispositifs soient executees et que les operations de gestion classique soient transparentes pour l'utilisateur. Le controleur de processus industriels met en oeuvre et execute un ensemble classique de blocs de fonctions (522) ou de fonctions de gestion definies par un protocole normalise de maniere qu'une gestion de type normalisee soit obtenue sur des dispositifs (12) de type non normalise. Le controleur de processus industriels permet a des dispositifs classiques (6) de mettre en oeuvre l'ensemble normalise de blocs de fonctions et des fonctions de gestion. Le controleur de processus industriels met en oeuvre une strategie d'ensemble comme si tous les dispositifs connectes etaient des dispositifs normalises, par l'utilisation d'un bloc de fonctions Fieldbus (bus terrain) en tant que bloc de construction fondamental de structures de gestion. Des blocs de fonctions sont definis pour creer des structures de gestion pour tous les types de dispositifs. Un utilisateur definit la strategie de gestion en construisant une pluralite de blocs de fonctions et de modules de gestion (440) et en telechargeant ou en installant des parties specifiques a l'utilisateur de la strategie de gestion dont les dispositifs Fieldbus et les autres dispositifs. Ensuite, les dispositifs Fieldbus executent automatiquement les parties telechargees de la strategie d'ensemble, independamment d'autres parties de la strategie de gestion. Le systeme de gestion de processus industriels comprend une fonctionnalite de controle diagnostique et d'affichage permettant de visualiser, de maniere coherente, des informations de diagnostics relatives a un processus execute sur des dispositifs et des composants systeme multiples. Le systeme de gestion numerique detecte automatiquement le moment ou un nouveau controleur est rattache a un reseau et determine le nombre et les types de ports E/S rattaches au nouveau controleur. Le programme du systeme de gestion numerique comprend egalement un programme de configuration automatique reagissant a la detection d'un nouveau controleur par configuration automatique du sous-systeme d'entree/sortie E/S. Lors de la connexion du dispositif, ledit dispositif est detecte et configure automatiquement au moyen des informations de configuration de la base de donnees, sans etablir de

commutateurs physiques ou d'informations d'adresses nodales sur les dispositifs. Le systeme de gestion numerique presentant une configuration predeterminee detecte automatiquement la connexion a un reseau d'un dispositif numerique non inclus dans la configuration predeterminee. Le systeme de gestion de processus industriels comprend une interface utilisateur (300) pouvant recevoir des langages de gestion normalises IEC-1131 multiples et une selection utilisateur parmi les langages de gestion. A partir d'un sous-programme d'application individuelle, un utilisateur selectionne un langage de gestion parmi une pluralite de langages de gestion comprenant, par exemple, des blocs de fonctions, des grap(inverted question mark)E

Patent and Priority Information (Country, Number, Date):
Patent: ... **19980820**
Fulltext Availability:
Detailed Description
Publication Year: **1998**

Detailed Description
... a device address that is a standby address or an assigned address. In either unrecognized **state** 2904, the physical device tag is read from the device and displayable on the screen...

...from the device and displayable on the screen.

In the standby state 2906, the field **device** is not yet autosensed and is therefore not available for configuration in the control strategy...

...included in Link-Active-Scheduler (LAS) schedules of the system management configuration. In the standby **state** 2906, finiction. block execution and **link** communications are disabled. Note that a Link-Active-Scheduler is a deterministic centralized bus **scheduler** that includes a list of **transmit** times for all **data** buffers in all devices that are to be cyclically transmitted. When a device is due to **send** a **data** buffer, the Link-Active- **Scheduler** issues a compel data (CD) message to the device. Upon receipt of the CD message...

...Any device that is configured to receive the data is defined to be a "subscriber". **Scheduled** **data** **transfers** are typically used for the regular, cyclic **transfer** of control loop **data** between devices on the fieldbus.

In the standby state 2906, the system management **state** is SM-OPERATIONAL, the physical **device** tag is equal to the device identification, and the device address is a standby address...

28/5,K/26 **(Item 18 from file: 349)**
DIALOG(R)File 349:PCT FULLTEXT
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00291246 **Image available**
METHOD AND APPARATUS FOR PARALLEL PROCESSING IN A DATABASE SYSTEM
PROCEDE ET APPAREIL DE TRAITEMENT EN PARALLELE DANS UN SYSTEME DE BASE DE DONNEES
Patent Applicant/Assignee:
ORACLE CORPORATION,
Inventor(s):
HALLMARK Gary,
LEARY Daniel,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9509395 A1 **19950406**
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English Abstract
The present invention implements parallel processing in a Database Management System. The present invention provides the ability to locate transaction and recovery information at one location and eliminates the need for read locks and two-phased commits. The present invention provides the ability to dynamically partition row sources for parallel processing. Parallelism is based on the ability to parallelize a row source, the partitioning requirements of consecutive row sources and the entire row source tree, and any specification in the structured query language (SQL) statement. A Query Coordinator (802) assumes control of the processing of an entire query and can execute serial row sources (804, 806). Additional threads of control, Query Servers, execute parallel operators. Parallel operators are called data flow operators (DFOs). A DFO is represented as SQL statements and can be executed concurrently by multiple processes, or query slaves. A central scheduling mechanism, a data flow scheduler, controls a parallelized portion of an execution plan, and can become invisible for serial execution. Table queues are used to partition and transport rows between sets of processes. Node linkages provide the ability to divide the plan into independent lists that can each be executed by a set of query slaves. The present invention maintains a bit vector that is used by a subsequent producer to determine whether any rows need to be produced to its consumers. The present invention uses states and a count of the slaves that have reached these states to perform its scheduling tasks.

French Abstract
La presente invention permet d'appliquer un procede de traitement en parallele dans un systeme de gestion de base de donnees. L'invention offre la possibilite d'implanter des informations relatives a une transaction et a l'extraction de donnees dans un emplacement, et supprime la necessite de verrouillages de lecture et d'enregistrement en deux phases. La presente invention permet egalement d'effectuer le decoupage dynamique de sources de lignes afin d'effectuer le traitement en parallele. Ce parallelisme est fonde sur l'aptitude a mettre en parallele une source de lignes, sur les besoins de decoupage de sources de lignes consecutives et de tout l'arbre source de lignes, ainsi que sur toute specification contenue dans l'instruction en langage d'interrogation structure (SQL). Un element de coordination (802) d'interrogation prend la commande du traitement de toute une interrogation et peut executer des sources de lignes en serie (804, 806). Des files de commande supplementaires, les serveurs d'interrogation, executent des operateurs en parallele. Ces operateurs en parallele sont appeles des operateurs de flux de donnees (DFO). Un DFO est represente sous forme d'instructions SQL et peut etre simultanement execute par des elements de traitement multiples ou des elements d'interrogation asservis. Un moyen de planification central ou agent de planification de flux de donnees, commande une partie mise en parallele d'un plan d'execution, et peut devenir invisible par rapport a l'execution en serie. Des files d'attente de table sont utilisees pour decouper et transporter des lignes entre des ensembles d'elements de traitement. Des liaisons entre des noeuds

permettent de diviser le plan en listes independantes qui peuvent chacune etre executees par un ensemble d'elements d'interrogation asservis. La presente invention maintient un vecteur de bits qui est utilise par un element de production de lignes suivant afin de determiner si des lignes doivent etre produites pour ses consommateurs de lignes. La presente invention comprend l'utilisation d'etats, ainsi qu'un comptage des elements asservis qui sont parvenus a de tels etats, pour effectuer ses taches de planification.

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Detailed Description
... its output table queue. The slaves implementing the table scan replies to the data flow **scheduler** that they are ready. The data flow scheduler monitors the count to determine when all...

...this DFO. If it is, the data flow scheduler sends an execute to a second **slave** set to start the sort/merge join (SMJ) DFO (i.e., 324A-324C). The slaves...

...e., "n" slaves where "n" is the number of table scan and SMJ slaves), the **data** flow **scheduler sends** a resume to the table scan slaves. When the table scan slaves receive the resume...

...table. The data flow scheduler does not have to wait for the other table scan **slaves** to reach this **state**. The data flow scheduler determines whether any rowid ranges remain.
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If there are no remaining rowid ranges, the **data** flow **scheduler sends** a
message to the table scan slave that sent the "partial" message that it is finished. If there are more rowid ranges, the **data** flow **scheduler sends** the largest remaining rowid range to the table scan slave.

When each of the table...

...all of the table scan slaves, the SMJ DFO will report to the data flow **scheduler** that all of the table scan slaves are done. Once it is determined that all of the employee table scan has been completed, the data flow **scheduler** determines the next DFO to be executed.

The next DFO, the department table scan, is...